GRID METHODOLOGIES

jf/mmc - 6/02

Method	Suggested Tools
MaxT/MinT (to 7 days) *Days 1-3* 1. Select Weather Elements Groups - AllMaxT or AllMinT 2. Populate with the official forecast. 3. Edit grids 4. Save grids *Days 4-7* 1. Assume populated with official and are working with previous forecast 2. Edit grids using the WG1 and change tools 3. Save grids	1. Serp tool for spot temps day 1 and 2 2. For day 3, there are 2 options: a) use the Serp tool to forecast spots b) copy day 2 into day 3, then use the adjust up/adjust down tools 1. For model trends: use the Change_over_time_model tool, then the add_change tool to the MaxT/MinT field 2. For 24h chnage: use the Change_over_time, then the add_change tool to the MaxT/MinT field
T (3-hourly through 72 h) 1. Select Weather Elements Groups - AllT 2. Select all time periods for T (note should be in 3-h time periods through 72 h) 3. Run tools 4. Adjust if necessary 5. Do not smooth grids! 6. Save grids	1. Get_T_from_MaxMinT_00z (usage:use between 00 and 12z, including updates) 2. Get_T_from_MaxMinT_12z (usage:use between 12 and 00z, including updates) 3. Adjust if non-diurnal temps using the temporal editor
Td (3-hourly through 72 h) 1. Keep the group AllT loaded (with 3-h time periods through 72 h) 2. Populate with official (previous) forecast or Populate with MesoEta/AVN/MRF combo 3. Adjust using tools 4. Do not smooth grids! 5. Save grids	1. Serp tool 2. Adjust up/Adjust down tool

RH (3-hourly through 72 h) 1. Keep the group AllT loaded (with 3-h time periods through 72 h) 2. Run the RHTool 3. Adjust if necessary 4. Do not smooth grids! 5. Save grids	1. RHTool creates RH from T and Td

Winds (3-hourly to 7 days)
 	
1. Select Weather Element Groups - AllWind
2. Edit previous forecast (adding day 7) or
or
    Populate the grids in the following order:
        a) MM5 or WsEta
        b) MesoEta
        c) AVN
        d) MRF
3. Adjust if necessary
4. Interpolate winds every 3 hours out to seven days
5. Save grids
	1. There are a variety of tools to use for adjustments...pick your favorite!

POP (12-hourly to 7 days)
 	
Days 1-3
 	
1. Select Weather Element Groups - AllPops
2. Populate the Pops with models
or
    Use previous forecast (adding day 7)
or
    Draw Pop contours by hand
3. Adjust if necessary
4. Save grids
 	
Days 4-7
 	
1. Use the methods above, or
or
2. a) Draw Wx grid first
    b) Create Pops from weather grid
3. Save grids
	1. Use the contour adjust feature
	
	1. Use the PoP_From_Wx tool for this alternative method

Weather (12-hourly to 7 days) 1. Select Weather Elements Groups - AllWx 2. Make sure there is not previous weather in the grids (use scratch grid) 3. Get weather from the Pops grids 4. Add thunderstorms manually to any periods if necessary 5. Save grids	1. Run the Wx_From_Pops tool (note: this tool does look at wx already there, which is why it is suggest to have a blank/scratch grid)
Sky (12-hourly to 7 days) 1. Select Weather Elements Groups - AllSky 2. Make sure there is not previous sky in the grids (use scratch grid) 3. Get sky from the weather grids 4. Get sky from the model RH where there is no weather. 5. Adjust if necessary 6. Save grids	1. Run Sky_Fom_Wx tool 2. Run SkyPlusSkyFmModelRH (note: run the tool 3 times...700mb, 500mb, 300mb using AVN/MRF)
QPF (12-hourly to 72 hours) 1. Select Weather Elements Groups - AllQPF 2. Populate with the BEST model or Use the previous forecast 3. Adjust if necessary 4. Save grids	1. Currently there are no specific tools.
Snow Level (12-hourly to 72 hours) 1. Select Weather Elements Groups - SnwLevels 2. Populate using the best tool for the current weather pattern 3. Save grids	1. Use the SnwLevel tool, and select the best fit for the current weather

Snow Amount (12-hourly to 72 hours)	1. SnowAmt_Init
	2. SnowAmt_SmartTool
1. Select Weather Elements Groups - SnowAmt	3. SnowAmt_With_Ratios
2. Populate using one of three tools	Note: the above tools are based on QPF.
3. Adjust if necessary	
4. Save grids	

Notes: